


RCE SR

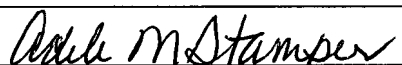


PTO/SB/21 (08-00)

TRANSMITTAL FORM <i>(to be used for all correspondence after initial filing)</i>		Application Number	10/084,935
		Filing Date	March 1, 2002
		First Named Inventor	Shunpei YAMAZAKI et al.
		Group Art Unit	2815
		Examiner Name	Jerome Jackson, Jr.
Total Number of Pages in This Submission		Attorney Docket Number	0756-2447

ENCLOSURES <i>(check all that apply)</i>		
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment / Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers <i>(for an Application)</i> <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Declaration and Power of Attorney <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group <i>(Appeal Notice, Brief, Reply Brief)</i> <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosures 1. Request for Continued Examination 2. Interview Summary Letter 3. 4. 5. 6.
Remarks <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees required or credit any overpayments to Deposit Account No. 50-2280 for the above identified docket number.		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	Eric J. Robinson, Reg. No. 38,285 Robinson Intellectual Property Law Office, P.C. PMB 955 21010 Southbank Street Potomac Falls, VA 20165
Signature	
Date	May 10, 2007

CERTIFICATE OF MAILING			
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date indicated below.			
Type or printed name	Adele M. Stamper		
Signature		Date	May 10, 2007

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.**



Attorney Docket No. 0756-2447

THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:)	Group Art Unit: 2815
Shunpei YAMAZAKI et al.)	Examiner: Jerome Jackson, Jr.
Serial No. 10/084,935)	<u>CERTIFICATE OF MAILING</u>
Filed: March 1, 2002)	I hereby certify that this correspondence is
For: INSULATING FILM AND METHOD)	being deposited with the United States Postal
OF PRODUCING SEMICONDUCTOR)	Service with sufficient postage as First Class
DEVICE)	Mail in an envelope addressed to:
)	Commissioner for Patents, P.O. Box 1450,
)	Alexandria, VA 22313-1450, on <u>May 10, 2007.</u>

Adrian M. Stampler

INTERVIEW SUMMARY RECORD

Honorable Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

A final Official Action was mailed August 14, 2006. The Applicant filed an after final *Response* on November 14, 2006 (received by OIPE November 17, 2006). An Advisory Action was mailed December 5, 2006. The Applicant conducted a telephonic interview with Examiner Jackson on December 14, 2006. The Applicant filed a Request for Continued Examination (RCE) and Information Disclosure Statement on December 14, 2006 (received by OIPE December 18, 2006). A *Notice of Improper Request for Continued Examination*, was mailed March 6, 2007, asserting that the RCE was improper for failing to include a submission.

However, under MPEP § 706.07(h), when no reply to an Office action under 35 U.S.C. § 132 is outstanding, as was the case in the present application, the submission requirement is satisfied by an information disclosure statement. Furthermore, under MPEP § 706.07(h), the submission requirement is satisfied by arguments submitted after final rejection, which were entered by the examiner but not found persuasive, if such arguments are responsive within the meaning of 37 CFR § 1.111 to an Official Action. The Applicant respectfully submits that the Information Disclosure Statement

filed December 14, 2006, and that the *Response* filed November 14, 2006, is responsive to the final Official Action mailed August 14, 2006, within the meaning of Rule 111 and therefore constitute a submission. Nonetheless, the Applicant received the *Notice*, asserting that the RCE was improper for failing to include a submission.

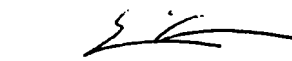
In a telephone conversation with Goiga N. Duckett, Technology Center 1600, conducted on May 9, 2007, agreement was reached that the present application is pending; that, in response to the *Notice*, the Applicant may submit a new RCE Transmittal along with a copy of the *Response* filed November 14, 2006; and that the RCE would be properly entered and processed with such attachments.

Although the Applicant respectfully submits that the RCE filed December 14, 2006, was proper and fully complied with the rules for at least the reasons noted above, in accordance with the agreement reached with Ms. Duckett, the Applicant has attached a new RCE Transmittal identifying the *Response* filed November 14, 2006, and copy of the same. Also, as a courtesy, the Applicant has attached the Information Disclosure Statement filed December 14, 2006, and copy of the same. The RCE Transmittal also indicates that the RCE fee was previously paid. Further, the Applicant has attached a copy of the *Notice* as required in the *Notice* itself.

As such, the Applicant respectfully submits that the submission requirement has been met. Therefore, the Applicant requests entry of the RCE and that the *Response* and IDS be forwarded to the Examiner for review and consideration.

Should the Technology Center personnel or the Examiner believe that anything further would be desirable to place this application in better condition for allowance, such personnel or the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

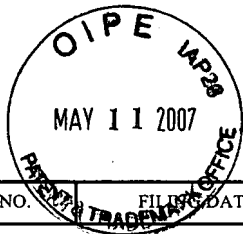


Eric J. Robinson
Reg. No. 38,285

Robinson Intellectual Property Law Office, P.C.
PMB 955
21010 Southbank Street
Potomac Falls, Virginia 20165
(571) 434-6789



UNITED STATES PATENT AND TRADEMARK OFFICE



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/084,935

03/01/2002

Shunpei Yamazaki

740756-2447

8560

31780 7590 03/06/2007
ERIC ROBINSON
PMB 955
21010 SOUTHBANK ST.
POTOMAC FALLS, VA 20165

RECEIVED
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BY:

EXAMINER

JACKSON JR, JEROME

ART UNIT PAPER NUMBER

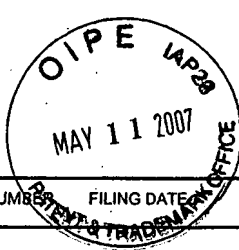
2815

MAIL DATE DELIVERY MODE

03/06/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.



Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

APPLICATION NUMBER

FILING DATE

FIRST NAMED APPLICANT

ATTY. DOCKET NO./TITLE

DATE MAILED:

NOTICE OF IMPROPER REQUEST FOR CONTINUED EXAMINATION (RCE)

The request for continued examination (RCE) under 37 CFR 1.114 filed on 12/18/06 is improper for reason(s) indicated below:

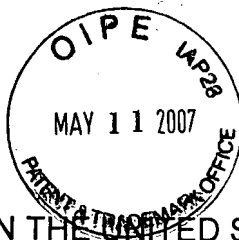
- ☐ 1. Continued examination under 37 CFR 1.114 does not apply to an application for a design patent. Applicant may wish to consider filing a continuing application under 37 CFR 1.53(b) or a CPA under 37 CFR 1.53(d). An RCE cannot be treated as a CPA.
- ☐ 2. Continued examination under 37 CFR 1.114 does not apply to an application that was filed before June 8, 1995. Applicant may wish to consider filing a continuing application under 37 CFR 1.53(b).
- ☐ 3. Continued examination under 37 CFR 1.114 does not apply to an application unless prosecution in the application is closed. If the RCE was accompanied by a reply to a non-final Office action, the reply will be entered and considered under 37 CFR 1.111. If the RCE was not accompanied by a reply, the time period set forth in the last Office action continues to run from the mailing date of that action.
- ☐ 4. The request was not filed before payment of the issue fee, and no petition under 37 CFR 1.313 was granted. If this application has not yet issued as a patent, applicant may wish to consider filing either a petition under 37 CFR 1.313 to withdraw this application from issue, or a continuing application under 37 CFR 1.53(b).
- ☐ 5. The request was not filed before abandonment of the application. The application was abandoned, or proceedings terminated on _____. Applicant may wish to consider filing a petition under 37 CFR 1.137 to revive this abandoned application.
- ☐ 6. The request was not accompanied by the fee set forth in 37 CFR 1.17(e) as required by 37 CFR 1.114. Since the application is not under appeal, the time period set forth in the final Office action or notice of allowance continues to run from the mailing date of that action or notice.
- ☒ 7. The request was not accompanied by a submission as required by 37 CFR 1.114. Since the application is not under appeal, the time period set forth in the final Office action or notice of allowance continues to run from the mailing date of that action or notice.

Note: A continued prosecution application (CPA) under 37 CFR 1.53(d) cannot be filed in a utility or plant application. A CPA filed in a utility or plant application that has a filing date on or after June 8, 1995 will be treated as an RCE under 37 CFR 1.114. The request for a CPA in the instant application, however, has been treated as an improper RCE for the reason(s) indicated above.

A copy of this notice MUST be returned with any reply.

Direct the reply and any questions concerning this notice to:

Jorge N. Duckett, Technology Center 1600
(203) 305-5711-272-0522



Attorney Docket No. 0756-2447

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Shunpei YAMAZAKI et al.

Serial No. 10/084,935

Filed: March 1, 2002

For: INSULATING FILM AND METHOD
OF PRODUCING SEMICONDUCTOR
DEVICE

) Group Art Unit: 2815

) Examiner: Jerome Jackson, Jr.

) CERTIFICATE OF MAILING
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Service with sufficient postage as First Class
Mail in an envelope addressed to:
Commissioner for Patents, P.O. Box 1450,
Alexandria, VA 22313-1450, on November 14,
2006.

) Adeline M. Stampen

RESPONSE

Honorable Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

The Official Action mailed August 14, 2006, has been received and its contents carefully noted. This response is filed within three months of the mailing date of the Official Action and therefore is believed to be timely without extension of time. Accordingly, the Applicant respectfully submits that this response is being timely filed.

Initially, it is noted that the Applicant would like to discuss the present application with the Examiner. The Applicant will contact the Examiner to arrange a mutually agreeable time and place for the interview.

The Applicant notes with appreciation the consideration of the Information Disclosure Statements filed on March 1, 2002; June 4, 2002; October 3, 2002; April 11, 2003; December 16, 2003; and March 27, 2006.

Claims 19-26 and 35-62 are pending in the present application, of which claims 19, 35, 43 and 51 are independent. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

The Official Action rejects claims 19-26 and 35-62 under 35 U.S.C. § 112, first paragraph, asserting that "there is no support for an 'interlayer insulating film' having the

claimed levels of halogen and carbon" (page 2, Paper No. 20060808). The Applicant respectfully disagrees and traverses the above-referenced assertions in the Official Action.

The specification discloses that in a silicon oxide insulating film, 1×10^{17} to 5×10^{20} cm^{-3} of halogen is detected from the insulating film while the carbon concentration is 5×10^{19} cm^{-3} or less, desirably 1×10^{18} cm^{-3} or less (see, e.g., page 5, lines 14-19). Also, the specification discloses that a silicon oxide film is deposited as an interlayer insulating film (see, e.g., page 13, lines 21-25).

In response, the Official Action argues that the statements of support refer to a "gate-insulating film" but not to an "interlayer insulating film." The Applicant disagrees. The Applicant notes that the title itself, the "Field of the Invention" section, and the "Summary of the Invention" broadly discuss an "insulating film" and not just a "gate-insulating film." Specifically, page 3, lines 10-17, and page 5, lines 14-29, discuss "an insulating film consisting essentially of silicon oxide" and the claimed concentrations are included at this point. Explicit support for an "interlayer insulating film" is provided at page 13, line 22.

Regarding the "gate-insulating film," the specification, at page 12, lines 6-7, states that a gate-insulating film is formed "by positive column CVD using TEOS, oxygen and TCE as raw materials." Similarly, regarding the "interlayer insulating film," the specification, at page 13, lines 22-23, states that "The silicon oxide film 209 was formed by positive column CVD, using TEOS, oxygen and TCE as raw materials." It is also taught that "the apparatus used for the filming was the same as in Example 1" at page 13, lines 24-25. Therefore, the "interlayer insulating film" at page 13, line 22, may be formed using a similar method and materials as that used to form the "gate-insulating film."

As such, the Applicant respectfully submits that the teachings with respect to the formation of an "insulating film" at the claimed concentrations (page 3, lines 10-17, and

page 5, lines 14-29) may generally be applied either to the "gate-insulating film" or to the "interlayer insulating film."

Therefore, the specification clearly discloses a silicon oxide film having a specific concentration of halogen elements and carbon, which is used as an interlayer insulating film, as claimed in the present claims. The Applicant respectfully submits that claims 19-26 and 35-62, when read in light of the specification, are adequately described and supported in the specification. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 112 are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,



Eric J. Robinson
Reg. No. 38,285

Robinson Intellectual Property Law Office, P.C.
PMB 955
21010 Southbank Street
Potomac Falls, Virginia 20165
(571) 434-6789